ESSAYS,

FOR THE

Month of DECEMBER, 1716.

To be Continued

MONTHLY.

By a Society of GENTLEMEN.

For the Universal Benefit of the

PEOPLE of *ENGLAND.*

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THE INTRODUCTION.

ON the first *Setting out* depends the *Fate of the Journey*; and therefore to obviate a Prejudice, which might easily happen, it is fit we shou'd give all our Readears *one Caution*, by way of Introduction.

We easily foresee, that it will be impossible for the Subjects we have chosen in this our First Book, to be equally pleasing to every Taste: Neither indeed cou'd any *other* have been so, which we might have pitch'd on in their stead. For it shou'd be consider'd, that the *Interests* and *Inclinations* of Men, are as various as their *Faces*; and that nothing was

ever so happily struck, but that *some* have disliked it.

Yet it were an Imprudence for a Man to conclude, that because the Essays we *begin with*, may happen to differ from his Relish, or be *out of his way*, that therefore *the Rest* will *continue* to be so. Our Work must consist of a never ending *Variety:* And besides, that a little Patience will certainly produce something fit for his Purpose, his Friends may be *pleas'd* in the Interim, and his Family *instructed* by Subjects, which are ever so wide from his own way of thinking.

There is more in this Caution than a Man at first View perhaps wou'd imagine; and to fix it the stronger in our Readers Opinion, we shall tell a *true Story*, not at all from our Purpose, and leave the *Application* to every Man's Judgment.

When Prince *Maurice* was Governor of *Brazile* for the *Dutch*, and encourag'd the falling into Sugar Plantations, an Inhabitant of the Colony was presented with a Book, which had been taken in a Prize, and contain'd an Account of some Progress in Experimental Philosophy, by a Professor of that Science in the University of *Salamanca*.

The

The Planter, not accuſtom'd to read or conſider ſuch Variety of Matter, and meeting, at his firſt looking into the Treatiſe, with a long Diſſertation on the Nature of *Colours*, concluded the Subject to be *out of his Way*, and threw aſide the Book, with the Negligence uſual on ſuch an Occaſion.

It happened, a Year or Two after, that as this Planter was buſied in his Sugar Houſe, he was dangerouſly *Scalded* by the *Boiling over* of the *Liquor*, which kill'd a poor *Negro* outright, and from which he *himſelf* found it difficult to recover, after tedious and painful Confinement to his Chamber.

He was ſitting one Day, as he began to be on the mending Hand, and took Notice, that a Lap-Dog in the Room was more buſy than ordinary in *ſcraping* and ſtruggling with his Feet, to get ſomething out from under a Cabinet. His Wife roſe to ſee what it was, and drew out *the Book above-mentioned*, cover'd over with Duſt; having fallen by chance, and lain there forgotten and unenquir'd after.

The Planter, now, in more Compoſure of Mind than was uſual, through his long want of Company, bethought himſelf that he wou'd dip here and there in the Book, and endeavour ſome Diverſion from *that Entertainment*, for

for want of a *Better*. Accordingly, he open'd it at random, and the first Page he fix'd on, began in this manner.——*From the foregoing Considerations it is easy to assign a good Reason for a very odd Effect, which the Planters of Sugar observe in their Boilers, into which, if they throw but a small piece of Butter, not much bigger than a Nutmeg, it infallibly keeps down the Liquor, which otherwise is often apt to* boil over *with a most sudden and dangerous Violence.*

It is easy to imagine he was *startled*, to light unexpectedly on a Hint, which concern'd him so *nearly*: He concluded however, that it was an improbable Fancy, and not worth believing; but his Wife, of a *Nature* more *curious* and *inquisitive*, gave Orders to their Overseer, for *trying* the *Experiment*, and found, to her Amazement, that upon throwing in the Butter, when the Liquor was just in its Fury of rising, it *fell flat in a Moment*, and continued to boil with a miraculous *Calmness*.

In short, this poor Secret has, from that time to this, maintain'd its Reputation. It has gradually spread through the Sugar Plantations of *Europe* and *America*, and is practis'd at this very Day by our *English* in *Barbadoes*, with never-failing Effect. But the Planters *past Smart* was *renew'd*, and made *sharper*, by

Reflection

Reflection on the Misery he had suffer'd through his *want of Curiosity*; since he had certainly found out the Secret *before*, and thereby *prevented* his *Misfortune*, if he had not too rashly rejected the *Whole*, because *Part* of the Book was not writ *to his Relish*.

The Reader will presently see, what a *Use* we propose he shou'd make of the foregoing Example: Which having recommended once more to his *serious Reflection*, we go on with our Business; and begin the Design with the following Matter, in Respect to the Ladies.

ESSAY I.

IT has long been a Notion receiv'd as a Certainty, that they cannot make fine *China Ware* in *England*, or indeed in any other Countrey of the World, but in that part of the *Indies*, from whence it is brought us: And to back this Opinion with some Shew of *Reason*, we are told, that the *Chineſe themſelves* cannot make it, but of *one* kind of Earth only; and that *even the proper Earth* is unfit for the purpoſe, till it has lain for an Age or two *buried*; and that, as it draws nearer to its *Pitch* of *Perfection*, it Yearly *increaſes in Value*, and is left as a Legacy from Father to Son, till it reaches its *Period*.

We ſhall prove this Report to be nothing but Amuſement, by inſtructing the moſt ordinary *Potter* in *England*, to make as fine *China* as ever was ſold by the *Eaſt-India Company*; and that with ſuch Eaſe, that it may be afforded almoſt as cheap as the commoneſt Earthen Ware. But we will *begin* the *Eſſay*, for the Satisfaction of Perſons, whoſe Curioſity leads them to enquire after Things they are yet unacquainted withal, with a true Informati-

on *what Earth it is* they make use of among the *Chinese*, and *how* they *prepare it* for this brittle Manufacture.

The Earth is a kind of *Tobacco-Pipe Clay*, perhaps somewhat fitter than ours, by the Sun's nearer Influence. When they first dig it up, they expose it a while to the Air, and then work it with Shovels, and much treading of their Feet; after which they form it in *Molds*, as we do *Bricks* in *England*, but *smaller*, and bake it in Ovens, with a violent Heat from Furnaces below them.

These bak'd Cakes of Earth they *grind down to Powder* in Mills made on purpose: When the Powder is as *fine* as it can be made by that Process, they have recourse to the *following Contrivance*, to make it *still finer*.

They throw it into Cisterns of *Water*, and stir it about without ceasing, for an Hour or more: After which they let it stand just so long, as till the Surface is free from the *Motion* which their *stirring* had given it, and then let it out at a Tap near the Bottom: By which means, the *heaviest* Particles, sinking naturally down, the *fine* undistinguishable *Atoms*, which *float* in the Body of the Water, and colour it like Milk, are *drawn off with it*, into another large Vessel.

In this second Vessel, the Water is suffer'd to *stand* for a Week or Ten Days; in which time there is *settled to the Bottom*, a very considerable Quantity of a *Milk-white soft Substance*, of an inexpressible *Fineness*; which when they have obtain'd, by *drawing off the Water*, they *work*, and *make up*,

up, as our *Potters* do *Clay*, but with a great deal more Neatneſs and Nicety.

Their Cups being *ſhap'd*, and *rough-made*, they let ſtand till half dry; and then with an Inſtrument of Copper, by rubbing them over, inſide and out, they *poliſh* and *ſmooth* them to their Fancy, and replace them to dry, till they are fit to be *glaz'd*.

For the *Glazing*, they grind down that *ſnow-white Enamel*, which is commonly made by our *Jewellers* and *others*; and having purify'd it with *Aqua Fortis*, they prepare it by *grinding* on a Painters Marble with a little *Gum-water*, and ſo *Glaze* the *China*, and ſet it to *Bake* in the Ovens above-mentioned, where the Fire muſt be ſtrong enough to make it red hot; and be ſuffer'd to go out, of it ſelf, that the *China* may cool by *degrees*, which were otherwiſe in danger of *breaking*.

The next Thing they do, is to *Paint* the Outſides of the Ware, as we ſee it brought over. The Painting it ſelf is no otherwiſe different from *Limning in General*, than in the way of *preparing the Colours*, which being form'd of the *variouſly-tinctur'd* Enamels, are dry'd in by Fire, in little Furnaces for the Purpoſe: But the manner of Painting on Enamel in all kind of Colours, being *common in England*, it is needleſs to teach its Particulars.

When the Diſhes are *Painted* to the Fancy of the Workman, they are *once more* put into the Furnace, to *Bake in* the Colours; after which there remains no more Work, and the *China* is fit for the Market.

The

The foregoing Description contains the *whole Chineſe Practice* in making this valuable Ware, from the firſt to the laſt; whence it plainly appears, that as we have *Potters*, *Enamellers*, and *Painters* in *England*, who can work in their Arts as well as the People of any other Nation whatever, there is nothing we can *want* for the *making of China* in its utmoſt Perfection, but the *Earth* 'tis compos'd of.

We have not, as yet, had a proper Opportunity, to *make the Experiment*; but we firmly *believe*, our *Tobacco-Pipe Clay*, bak'd over and over, and often *refin'd* by the Proceſs before-mention'd, might be *capable of doing it*: And we are the rather inclin'd to propoſe it, from an Obſervation, which all Men may, every Day make, that the *Clay* of which *Tobacco-Pipes* are *made*, can, by no means, compare with the Clearneſs and Whiteneſs of the *Pipes themſelves*; and yet thoſe white Pipes attain that Improvement by *one Single Baking*.

But leaving the uncertain Effect of this *Conjecture* to the Trial of the Curious, we give you the following, as a *try'd* and *infallible* Method.

Let any good Workman in the Potters Profeſſion, who would benefit himſelf by this Art, employ ſome poor People to buy up the *old broken China*, which every Houſe can afford him. This Ware he muſt *grind in a Mill*, with a flat Stone and Runner. The Mill is a *common one*, and every-where to be met with. The Powder, when it comes from the Mill, muſt be further reduced and

and *refin'd* by the Assistance of *Water*, in the manner which was just now describ'd.

The *gross Parts*, which *settle*, and *lie in the Bottom*, and are not drawn off with the Water, may be *dry'd*, and ground over again with new Ware, so that nothing is lost in this Practice. But the fine Stuff, or Substance, which will be got from the *Settling* of the *Water*, when let stand in the Second Vessel, must be mix'd with the Fourth Part of its Weight, of *Quick-Lime*, dissolv'd in *Gum-Water*.

The Quick-Lime here meant, must be *different* from the *common Sort*, and is made in a Furnace, of what Size you please, by no other Labour, or Charge, than *burning clean Oyster-shells*, as they do *Chalk*, in *Lime-Kilns*. Of this Composition, must the Dishes be made; and being afterwards *Bak'd*, *Glaz'd*, and *Painted*, in all which there is nothing *uncommon*, or *difficult*, you have *China-Ware* perfect, and finish'd, as that from the *Indies*: For indeed it is the same, both in *Figure* and *Substance*.

We have done with this Part of the Subject: And if any should object, that *none but a Potter can benefit by it*; they are answer'd, We began our Essays with a Caution to our Readers, that they shou'd not expect to be *all pleas'd at once*. Though, besides the great *general Profit* of such an Improvement in the Nation, the Purses of *most Men* will be sensibly serv'd, by reducing the present extravagant Rates of this Fashionable Furniture, and making some kind of *Amends* for its *Brittleness*,

by

by giving a *Value*, even *after 'tis broke*, to that which is *now*, but *unprofitable Rubbish*.

We are ſure no Objection can reaſonably lie againſt putting in Practice ſo gainful, as well as ſo uſeful a Manufacture; unleſs it ſhall be thought a ſufficient Obſtruction, that when the Improvement is generally fallen into, the *Matter* it ſelf, upon which it depends, will *fail them in Time*, becauſe 'tis impoſſible (when the firſt Stock is conſum'd) to be furniſh'd with *broken China*, in Quantities proportion'd to the Call there will be for it.

We anſwer to this; 'twill be long before any ſuch Want can take Place; and the *firſt Undertakers* will ſufficiently benefit themſelves in the Interim.

Neither is there any Reaſon to doubt, if our Hint of *refining* T*obacco-Pipe Clay*, ſhou'd not anſwer our Hopes; but that when the making of *China* ſhall be common in *England*, the inquiſitive Genius of our People, puſh'd on to due Search by a Proſpect of *Profit*, will diſcover, in ſome Part or other of *Great-Britain*, as fine, and as capable *Earths*, as thoſe of the *Indies*. And to ſhew the Diſtruſters, that this Expectation is no way *Chimerical*, we will tell them a Story, that may *encourage* ſuch Endeavours.

In the Heat of the Second *Dutch* War, a Ship of that Country was wreck'd in a Storm on the Coaſt of *Norfolk*; one poor Sailor was all who eſcap'd of the Crew, and he made hard Shift to reach Land on a Piece of the Wreck.

Half

Half dead with *Cold*, and the *Fatigue of his Deliverance*; he crept to the Houſe of a Neighbouring Farmer; who, believing it unlawful to ſhelter an Enemy, wou'd by no means be tempted to give him Admiſſion; ſo that driven to Extremity, unknown, and helpleſs, he had no View before him, but to wander up and down, in hopes he might light accidentally on ſome more *Hoſpitable Dwelling*.

In a Lane which he paſs'd through, he ſaw an *old Coat* hung over a Gate; he look'd every way round him to diſcover the *Owner*, but not ſeeing any Body near him, and the Evening coming on, he bethought himſelf that it might be of Uſe to put on that Coat, while he threw off his wet Cloaths to *dry*; ſo he took it from the Gate, and withdrew towards a *Copſe*, not far diſtant.

The Owner of the Coat was a *Ditcher*, then at work pretty near; he ſaw the *Dutch* Sailor from an oppoſite Hedge, coming over the Field, and thinking he had *ſtolen* the Coat, he ſurpriz'd him on a ſudden, and taking it from him, examin'd him, in a Language he underſtood not the Meaning of, *Who he was*, and by what Means he *came thither* in ſo wet a Condition.

The Gentleman, for whom the Ditcher was at Work, had formerly been a *Merchant*, and ſpent much of his Youth with the *Hollanders*: He was walking at that Time in the *Copſe*, and being diſturbed at the indiſtinct Sound of a Jargon, half *Dutch* half *Engliſh*, came out to the Field, and *unriddled the Matter*.

He

He took Pity on the Misery of a Stranger, brought him home to his House, and refresh'd him with *Sleep*, and a *warm Sute of Cloaths*, and undertook to sollicit the Means of his *Return* to his Country.

The Merit of his Charity was overtaken in the Act, by a *Reward* as unexpected as the *Accident*. The Gentleman had at this Time employ'd a great Number of Workmen, in *draining* a large Track of *Meadow*, and finding in Discourse, that his *Dutch Guest* had some Skill in Business of that Nature, he took him out with him one Morning, and desir'd his Advice, in removing some Difficulties, which his Drainers had met with.

When the *Dutchman* came into the Field, he stopp'd short with *Surprize*, at a Bank of *White Earth*, which had been cast up by the Diggers: The Gentleman demanded the Cause of his examining that Clay with such *Earnestness*; and was answer'd, that it was sold in his Country at extravagant Rates, to the Makers of *Delf-Ware*, and fine Earthen Vessels, being brought down the *Rhine*, out of some Place in *Germany*, and very much coveted in all Parts of *Holland*.

The Gentleman, to make the best Use of this Hint, upon Conclusion of the Peace, which happen'd soon after, sent over a *Sample*, and finding the Sailor's Account to be *true*, he open'd the *Vein*, and dug up such a Quantity, as brought him in a Profit of *Ten Thousand Pounds* in Eighteen Months Time: But the Stock was *exhausted*, and he never could find any more in his Lands, though he

he diligently and frequently made it his Endeavour.

We hope the *Example of this Story* may have Power to influence the *Curiosity* of our *Gentlemen*: And the rather, because there are many Estates, now in *Mortgage* for above half their Value, whose *unfortunate Owners* walk every Day over Treasure enough to make them easy for ever, without knowing, or thinking of any such Matter.

To assist so desirable a Change, we will teach an infallible, easy, and cheap way, to discover what different Bottoms lie under all Lands; By which Means the Owner may often find out *Marl*, *Chalk*, *Fullers-Earth*, *Tobacco-Pipe-Clay*, Yellow *Oker*, or Red; *Sea Coal*, or *Quarries* of *Stone*; any one of which may, in some Parts of the Kingdom, where they are *wanted*, be of Ten Times more Value, than the Estate, which conceals them.

You must order a Smith to make Six Iron *Augers*, or *Borers*, with each a cross Handle: They must be very *strong made*, and of a Thickness proportion'd to their Use. The Bottoms, or *Bits* of these Augers must be *twisted Skrew-wise*, like a *Joiner's Gimblet*, that they may always *bring up* some Part of the Soil they shall Pierce. The First may be Three Foot in Length, that a Man may stand to it, and manage it with Convenience. The Second must be *Six* Foot Long, which being put down Three Foot into the same Hole, when the first is drawn out, will be as easily manag'd as the other, and bore Three Foot deeper.

Then the Third must go in, which is *Nine* Foot in Length, and the rest being each Three Foot longer than the other, the Earth may by this means be bor'd to what Depth you please; only remember to draw up the Augers every new Foot they Pierce, that the Bits may be narrowly *exa-min'd*; and by what you *find in them*, you are fully acquainted what *Earth*, *Stone*, or *Mineral*, lies under the Surface.

ESSAY II.

THERE is not among the many *Complaints* in this City, any one that is *juſter*, or more *common*, than that of the great *Price of Coals in the Winter*; by which means it ſometimes has happen'd, that many *Poor People* have been nigh ſtarv'd to Death, and Perſons of *moderate Subſtance* conſiderably Inconvenienc'd.

We believe we ſhall do an *Univerſal good Work*, if we point out ſome Means for an *Eaſe to this Burthen*. And the rather, ſince there is not a Family in *London*, but may, with no further Trouble than the Labour of a Servant, continually furniſh themſelves with large Coal for Firing, as uſeful as *Scotch-Coal*, at a Third Part of the Charge they are now at for common *Sea-Coal*.

The *Expence*, which is neceſſary for beginning this Work, is very *inconſiderable*, in Compariſon with the *Benefit*, and is but for *once*. After which the Materials are ſerviceable for ever, and require no Additional Charges. But People, who

can't well afford to lay out the Money, how little ſoever, they may without it perform all the Labour *by Hand*, and that with much Eaſe, in Regard they conſume a *leſs Quantity* of Fuel.

But they, who are *able* and *willing* to be at the above-meant Expence, muſt give Orders to ſome *Iron-Millmaker*, to furniſh them with a Mill ſomewhat *bigger*, and *ſtronger* than a *Malt-Mill*, but of the ſame kind of *Make*, with a Hopper upon it, which will hold a good deal more than a Buſhel; the Figure of which you may ſee in the Cut.

This Mill ſhould be plac'd in ſome Corner of the Coal-Cellar, and the Coals, which are laid in for the Uſe of the Family, may be juſt a *Fourth Part* of the Quantity, which they formerly burnt. And whereas it is uſual at preſent, for People to chuſe out the *largeſt*, and moſt *lumpy Coal* they can get; the fitteſt for their Purpoſe in this *new Improvement*, will be the *ſmalleſt*, and moſt *broken*, even, if poſſible, the very *Sifting* of the Wharfingers Coal-Heaps.

The Coal, when laid into the Cellar, muſt, as Leiſure and Opportunity offer, be *ground down in the Mill*, by the Labour of ſome Servant, or a Workman, who may be hir'd for the Purpoſe. The Mill muſt be *ſet* ſo, as to grind very *fine*; for the ſmaller the Powder, the fitter for the Buſineſs. And if any Coals are too big for the Teeth of the Mill, 'twill be eaſy for the Workman to *break them* with a Mallet, and thereby reduce them to a Size more convenient.

While

While the Coal is thus Grinding, and laid up in a Readineſs in one Corner of the Cellar, ſome Lightermen, Ballaſtmen, or Bargemen, muſt be agreed with for a Quantity of that *black Owſy Mud*, which is common on both Sides the *Thames*, from Low-Water-Mark to the Banks of the River, and which may alſo be met with in all *Ponds*, *Canals*, and the *Ditches* of *Gardiners*, *Whitſers*, and *Marſh-Lands*, which abound beyond Number in the *flat* Grounds below Bridge.

It is to be noted, that, for the better Conveniency of *Carriage*, the Owſe may be thrown up to *dry* in round Heaps, above Highwater-Mark, by which Means, when the *Lighters* deliver it to *Carmen*, they may bring it *in Sacks*, or *without*, at their Pleaſure.

When the Owſe and the Coal are both ready in the Cellar, the Workman muſt *mix* them as follows: To every Shovel-full of the Powder of *Coal*, he muſt throw in Three Shovels full of *Owſe*, and work, beat, and mingle them together, till he has got a large Heap in the middle of the Cellar. He muſt then make a Hollow in the Top of the Heap, and pour in a Quantity of Water, juſt enough to give *Moiſtneſs* and *Conſiſtence* to the Mixture; after which, he muſt *back, beat* and *labour it together* with the Edges, and Back of a Spade, till 'tis thoroughly prepared, and will *cut cloſe* like Wax.

He muſt then, with his Hands, make it up into *Balls*, about the Size of a *large Cannon Bullet*, and lay them to *Dry*, in the manner of *Pyramids*, that the Air paſſing eaſily through the Hollows, between Ball and Ball, may *harden* and fit them for the Uſe, they are made for.

For the better *comprehending* all this, we have repreſented the ſeveral Parts of the Work in a Cut, Number 2.

We have narrowly ſearch'd, by Experience, into the Charges, and the Benefits of this new Fuel: The Expence in the *whole*, brings the *Culm-Balls*, when fit for the Fire, to leſs than *Four Pence per Buſhel*, ſuppoſing the *Coals* to be furniſh'd at the *beſt Hand*, and in the *Summer Seaſon*; and yet, for *Pleaſure*, for *Heat*, for *long Burning*, and *Cleanlineſs*, *One* Buſhel of *this* is worth *Two* of Sea-Coal.

The *Figure* of a *Fire* made of *Culm-Balls*, is exactly what you ſee it in the *Cut*. The Owſe is ſo *Fat*, and ſo *naturally Combuſtible*, that 'tis impoſſible for any Thing to burn with ſo *ſtriking* a *Livelineſs*; it throws out a forcible, glowing, and regular Heat; it continues to burn from Six to Eight Hours, with ſcarce any viſible Leſſening: And it neither *falls out* through the Grate, like ſmall Duſty Coals, nor makes any foul *Smoak*, or heavy dark *Aſhes*, but goes off, to the laſt, with a clear ſprightly *Brightneſs*.

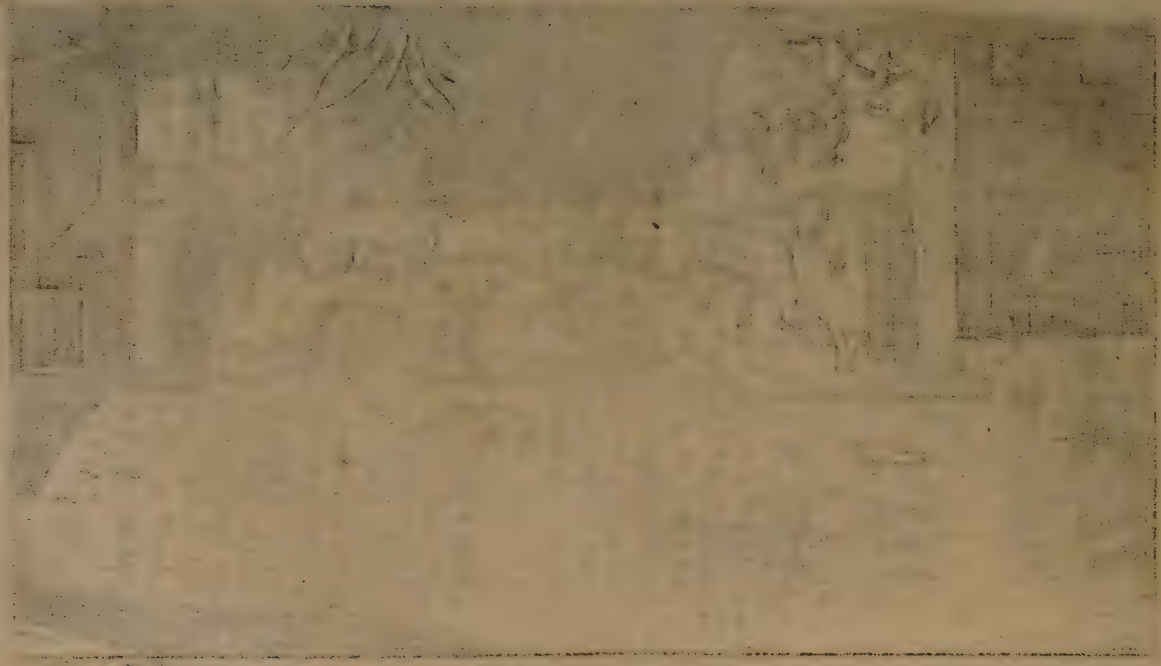
Every

Every Thing, we know, is a *Difficulty* to the Doubtful. And we are ſenſible (though nothing can be more Plain and Practicable) that *moſt private Families* will be backward in *changing* a Method, made eaſy, and eſtabliſh'd by *Cuſtom*: We therefore, in a more particular manner, recommend this Improvement to *Wharf-Men*, and thoſe who *ſell Coals*: They have very convenient *Situations* for the Buſineſs; for the *Owſe*, here requir'd, lies every where round them, and they may not only draw an unthought-of *Profit* to *themſelves* from the Practice, but be alſo a Means of great *Service* to the *Poor*, and a *Pleaſure* to *all Men*.

If ever the Uſe of this *new* Sort of *Fuel* ſhou'd gain Ground, and grow *general*, the City of *London* has, in its Neighbourhood, an inexhauſtible *Magazine* of the *Owſe* we have been ſpeaking of, which was occaſion'd by the great *Breach at Dagenham*, which has, many Years, *drown'd* a large Parcel of *Land*, inſomuch, that at preſent there are Twelve Hundred Acres overflow'd every Tide, and all cover'd high with a new Surface of *Owſe*, whoſe extraordinary Fertility has ſhot up a Foreſt of *Reeds*, *Flags*, and *Ruſhes*, of a monſtrous Height: And the Roots are ſo thick, and deep in the Earth, that for Eight or Ten Inches, the *Top* being *pair'd away*, and cut *into Squares*, of the Shape and Size of *half a Brick*, wou'd become, when grown *dry*, the beſt *Fuel* in the World, *without Mixture*, being *half Wood*, and *half Turf*; and as any Man, by *Computation*, will preſently ſee, (ſuppoſing the Earth to be pair'd

but Six Inches down, which is not half what it has *gain'd* ſince the *Breach*,) the Fuel ſo obtain'd upon every Acre, would be more than *Ten Thouſand Buſhels*; which, at Three Pence *per* Buſhel, were a Profit of above *a Hundred Pound from each Acre*, and the *Land* all the while *not damag'd* to the Value of a *Farthing*; ſo that a very odd *Paradox* might ariſe from the Accident, *that the Owners of this Land might make far greater Profit by it, in its preſent ruin'd Condition, than they cou'd have reap'd, when it was at its beſt common Value.*

ESSAY



ESSAY III.

HAVING *touch'd* an Occaſional Proſpect in the *Cloſe* of the foregoing *Eſſay*, concerning a probable Profit to be made of the overflow'd Marſh-Lands at *Dagenham*, we ſhall, in what follows, propoſe a new, eaſy, and very cheap Method for *ſhutting up that Breach*; and not only that, but all others, which already *are made*, or which hereafter *may happen*, whether by Force of the *Sea*, or of *Rivers*.

We particularly aim this Diſcourſe as a *Hint*, which may do Service to a worthy and ingenious Gentleman, who has, for ſome Time, been engag'd in a Work of this Nature at the Place abovemention'd; it being conceiv'd, upon rational Grounds, that this very Breach, when *at worſt*, might have been *ſtopt* by ſuch Meaſures, as we ſhall *lay down*, for leſs than a *Tenth Part* of the Charge, which it has occaſion'd in vain, even before it was undertaken by the preſent Adventurer, whoſe Experience, and former Succeſſes in Works of this kind, give us hopes it will *now* be accompliſh'd.

About Eight Years ago, in the Night, by the force of a violent Wind, a High Tide bore too hard upon the Banks; and the *Marſh Wall*, as they call it, which is the *River Bank*, *giving way*, the Water *flow'd through*, and came over the Paſtures.

The Neglect of this Breach, or the too weak and ſlow Progreſs, which was *then* made againſt it, gave the River a Power to enlarge its Invaſions, till at laſt they became *irreſiſtible*; and opening a Paſſage of a Hundred Yards wide, the Tide ruſhes through it with a Swiftneſs and Violence, which cannot be ſo much as imagin'd, but by ſeeing it. And the numberleſs *Fluxes* and *Refluxes* having *worn away the Bottom* to a very great depth, the Endeavours of ſeveral Gentlemen, at prodigious Expences, were too weak to withſtand its *overbearing*: For the *Piles*, or huge Trees, with ſharp Iron-ſhod Points, which they caus'd to be *driven down*, being *ſapp'd* and *undermin'd*, by the *letting in* of the Waters at their Bottom, were *born up* on a ſudden, and the *Chalk-ſtones*, *Bags of Earth*, and *Bank Rubbiſh* they ſupported, were of courſe *waſh'd away* by the Deluge.

The Point to be gain'd, for effectually *Inning* this terrible Breach, is, to cloſe up the Throat of its Channel with a Bank of ſuch Strength and Solidity, as to bear all the Force of the Stream, while 'tis *Raiſing*, and the great Weight of Water, which will aſſault, and lie againſt it, when 'tis *Raiſed*.

To which End, the Reader may be pleaſed to take notice, that the natural Soil of the Place is an excellent *Clay*, and if a *Brick-work* were erected

on each ſide the Breach, they might make *large ſtrong Bricks* of a new kind, on purpoſe, *in Moulds of Two Foot Square*, or more, with *Holes* here and there left *through them* in their forming, which would make them *dry eaſily*.

Such large Bricks as theſe are *common* in *Italy*, and frequently us'd in the *Walls* of their *Caſtles*. They deliver them at the Makers for about *Five Pound the Thouſand*.

The *Largeneſs* of theſe Bricks, when made at the Breach, will be no way a *hinderance to their Burning*; for not only the *Quantity* of Fuel is proportion'd to their *ſize*, but the *Holes*, which paſs through them, by admitting the Heat, make their Hardening as eaſy, as if they were ſmaller: And it is to be obſerv'd, that the purpoſe, for which we are making theſe Bricks, will require no Nicety of *Colour*; and they may therefore be burnt without Trouble, or Caution.

As the *Earth* for the Bricks is the *Product* of the *Place*, ſo alſo may be the *Fuel* for their *Burning*: The huge Reeds abounding, as we mention'd before, over all the drown'd Land, being *cut up and dry'd*, is the fineſt and propereſt Matter, which cou'd be wiſh'd for the purpoſe, and eſpecially, as it may be aſſiſted by the tough ſtringy Subſtance, than which the whole World cannot yield a more excellent Fuel.

Thus, without the Expence, or the Trouble of Carriage, is provided what ſtore can be wanted of theſe new Materials, and it only remains to diſcover their *Uſes*.

In

In proportion to the Strength and Depth of the Water, muſt the *Breadth* of a *Bank* be deſign'd; In the Caſe we are ſpeaking of, *a Hundred Foot broad* ſhall be pitched on as a Standard, and (*the Place for the Bank being choſen, and mark'd out*) exactly in the midſt of the ſpace 'tis to riſe in, muſt be laid, as may be ſeen in the Cut, a ſtrong *Float*, Floar'd with Deal, and built upon ſmall Boats, or *Pontons*, and of Length enough to reach quite croſs the Breach, kept exact to its Place, between *Piles on each Shore*, or by any *other* Means they like better, and eaſily *riſing* and *ſinking* with the *Flood* or the *Ebb*: The *Breadth* of the Float may be Fifteen or Twenty Foot over.

The Brick-kilns on either ſide the Breach, muſt, as you may ſee in the Cut, ſtand cloſe to the Edge of the Chanel, for the more ſwift and eaſy Conveyance of the *Breach-ſtones*, as we will call them, to the Place of their Service on the Float-Bridge, which may be done in *Wheelbarrows*, as in the Cut, or by any other readier Method.

There muſt be ſeveral Workmen continually employ'd in *carrying the Breach-ſtones*, and others, who *apply them to their Uſe*, which laſt need not be more than *Twenty*; that is, one Man to every five Yards of the Length of the Float, ſuppoſing the Breach to be *a Hundred Yards over*.

Theſe Twenty Men, ſtanding every one in his proper place upon the Float, will have nothing to do, but to take up the Breach-ſtones, which are brought to them by the other Labourers, and roll them

them gently over the ſide of the Float *down into the Water.*

Their great *Weight*, for they are, as was ſaid before, exact Squares of two Foot every way, which is *Eight Foot ſolid*, will, in ſpite of the Rapidity, and Depth of the Stream, carry them *down*, with very little ſloping, *to the Bottom of the Channel*; and when they are *there*, the ſame weight will be ſure to keep them *ſteddy*; and *other Breach-ſtones* falling preſently after them, will lie either *near*, or *upon them*, and ſo as the *Number*, *let fall*, grows *greater*, the *Ridge*, they will make, becomes *higher*, and conſequently *weaker*; and the Force of the Stream, gaining Power enough to *overturn* it, will do ſervice to the Work: For the Stones, which are ſo overthrown by the Current, muſt fall ſometimes to the Right, and ſometimes to the Left, and they will by that means *always cover new Ground*, within the compaſs of the deſign'd Bank, and ſo *by widening the Work*, afford a Foundation for a Superſtructure of the ſame kind, which by becoming *ſtill broader and broader*, will at laſt be too ſtrong for the whole Force of the Current.

It muſt be noted, that as theſe Breach-ſtones will fall and fix themſelves, ſome upon their *Points*, others upon their *Flats*, and ſome again upon their *Edges*; ſo they will naturally leave large *Hollows*, and conſiderable Vacancies between Stone and Stone, of various Forms and Sizes: And, as the *Stream* in this, and all other Breaches, runs extreamly *thick*, and *muddy*, all theſe hollow Places will be filled by the *gradual Settlings* of the *Mud within them*; by which means the Bricks will be *fix'd ſtrongly* in

their

their ſeveral Poſitions, and all *join'd together*, as a Wall is with Mortar.

This Uſe of the thick muddy Water will be much help'd and forwarded, if with conſtant Regard to the Current of the Tide, a *Liter* lies at Anchor, as in the Cut, at a reaſonable diſtance from the Work, and ſeveral Men are employ'd on Board her, two or three times a Day, to ſtir and rake up the Bottom with long Iron-pointed Poles, that ſo the Water, being *troubled* more than ordinary, may convey among the Work a greater Quantity of the deſir'd *muddy Settlement*.

It is plain, that in an Attempt of this kind, there cou'd be ſcarce a *Poſſibility* of *Miſcarriage*; for every *Overthrow* of the *Bank*, the *Ruin* of all *common* Works of this Nature, wou'd be an infallible means of *increaſing its Strength*, till having attain'd the Breadth of about *Eighty*, or a *Hundred Foot*, it wou'd be *afterwards* impoſſible for any Force of Water to deſtroy, or weaken it.

On the contrary, the *ſwelling* and *beating* of the River againſt it, would become of *Service* to the Work, when 'twas finiſh'd, becauſe every Tide wou'd of courſe leave a *New Coat of Mud* upon the Slope, as we obſerve on the ſteep ſhelving Shores of almoſt all great Rivers.

The Work it ſelf may, after it is once begun, be carry'd on without Intermiſſion, till compleated, Day or Night, Summer or Winter, High-water or Low, being equally fit for this Buſineſs: And a ſufficient Quantity of the ſquare Bricks being firſt provided, we conceive that in three Weeks, or a Month

Month at fartheſt, *Dagenham Breach* might be *ſecurely ſhut up* by this eaſy method.

As for the *Charge*, it will be neceſſary that we ſay a word or two on that Head, for the Satisfaction of ſome Readers, who are not accuſtom'd to *Computations* of this kind, and poſſibly may *overrate* it in their Random Conceptions.

The Reader may pleaſe to remember, what we declar'd in the foregoing Parts of this Eſſay, that in *Italy*, ſuch Bricks, or larger, are us'd in the Walls of their Caſtles, and Under-ground Buildings, ſuch as *Arches* and *Foundations*; and that the Price at the Makers is after the Rate of *Five Pound a Thouſand*; and certainly that will be more than they can fairly be reckon'd at in our Caſe, when we conſider that *Clay* for their *Making*, and *Fuel* for their *Burning*, the Two deareſt Articles, are *here* to be had on the *Spot*, and that *Gratis*, which in *Italy* is very much otherwiſe.

If then we allow, that the Price of our Bricks will be *Five Pounds per Thouſand*, it only remains to compute, *how many* the Work will require, and what Number of *Workmen*.

And becauſe we will be ſure not to *under-reckon* the Charge, we will imagine the Bank to be built like a *Wall*, cloſe cemented together, and as wide at the Top as the Bottom; whereas on the contrary, ſuch Banks are *ſloping both ways*, and much *narroweſt upward*; and the Breach-ſtones *not cloſe join'd*, but kept *wide* by a very conſiderable Quantity of fat Earth between them. However, a Wall of Three Hundred Foot long, One Hundred Foot broad,

broad, and Fifty Foot high, (much more than is neceſſary) will take up in the whole, *One Hundred* and *Eighty Seven Thouſand Five Hundred* ſuch Bricks, which at Five Pounds *per Thouſand*, will amount to *Nine Hundred Thirty Seven Pounds Ten Shillings*, for the Bricks, which will be neceſſary.

If it were poſſible (which it is not) to find a whole *Months Employment* for a *Hundred* Day-Labourers, in filling up the Breach with theſe Bricks, when prepar'd, their *Wages*, at the Higheſt Rates uſually given, wou'd fall under *Two Hundred Pounds*; and if, for the *Float*, and the neceſſary Hire of *Lighters*, and *Boats*, and ſuch *other Expences*, *Three Hundred Pound more* be thrown into the Reckoning, it appears by as Rational a Gueſs, as can be given, that this Breach might be Inn'd with Security, and laſting Solidity, for a leſs Sum than *Fifteen Hundred Pounds*; and we are much miſinform'd, if *already* there has not been laid out upon it *above as many Thouſands*, without taking into the Account the Expence of the preſent Undertaker.

Having talk'd in this Eſſay of the *Brickmakers* Art, we will embrace the Occaſion to give a profitable Hint to the *Maſons*, and *Bricklayers* of *London*, which may alſo be of conſiderable Pleaſure, and Service to all Gentlemen, or others, who concern themſelves with *Building*.

There is nothing more Graceful than a Faſhion, which, of late, has got Ground, of adorning the Corners, and Window-work of new Built Brick-Houſes with *Stone-work:* And no doubt but the Method would ſoon become *General*, if it were not, that the great *Price* of *Stones* at the *Quarry*, the

the *Trouble* of their *bringing to London*, and their *Hewing*, and *Squaring* when here, were a Charge beyond moſt Mens good Liking, or Capacity.

But this Objection will no longer have Force, if we put our Town Builders in Mind of a way to procure *Artificial Stonework*, as cheap as their Bricks, and of much more Whiteneſs, and Beauty, than the beſt Stone now us'd in our Buildings.

This is eaſily done by preparing *white Clay*, as the *Pipemakers* do, and then *caſting it in Moulds*, of what Bigneſs they pleaſe, either Square, or of any other Figure they fancy: After which they muſt *Bake* them to the requiſite Hardneſs, and they will be *gloſſy*, *white*, *ſtrong*, and *durable*, and not only lighter than Stone in the Handling, but immediately ready for *laying together*, without any Trouble of *Cutting*, or *Poliſhing*.

By the ſame way may be imitated *Plain Stone Pillars*, or *Fluted*, of any *Bigneſs*, or *Order*; and if a *Hollow* be left through the *Middle* in their *Making*, they will *dry* with much Eaſe, and be found of no ſmall Advantage in Building. The Practice may be alſo apply'd to the Moulding of *Hearth Stones*, and *Chimney-Pieces:* And, if in mixing up the white Clay, they would mingle a well-choſen Variety of *Colours*, ſuch as *Yellow Ochre*, and *Red*, *Spaniſh Brown*, common *Indigo Blue*, firſt diſſolv'd in ſtrong *Lye*, and ſcatter here and there the ſmall *Filings* of *Braſs* and *White* Metals, 'tis impoſſible to conceive what a Beautiful *Veiny-look'd Marble* it would imitate. But they muſt always take Care to *ram* the *Clay* very

 hard

hard down into the Moulds they would form it in, becauſe, upon that, depends chiefly the Poliſh, and ſmooth ſhining Surface of the Compoſition.

The *Bricklayers*, by cauſing their Bricks to be made, in like Manner, in *Moulds*, form'd with all the Embeliſhments us'd in their *fineſt Workmanſhip*, would ſave themſelves the Labour and Charge of Cementing together huge *Lumps* of *Brickwork*, on Purpoſe that they may afterwards be able to *cut*, and *carve out* the Forms, which they might as eaſily by this Means *have them caſt in at firſt*.

But the *Makers* of *Bricks* will doubtleſs be unwilling to go *out of their Road*; and may offer, by way of *Objection*, That it will be impoſſible to *burn* any Bricks to Perfection, which are made of ſuch Thickneſs, and Subſtance, as will be requir'd to ſome kind of Mouldwork.

Experience is the faireſt Confuter of Difficulties: And in Anſwer to any ſuch Objections as theſe, we need only obſerve, That Sir *John Winter* did, long ſince, make Trial, and *demonſtrate*, that 'tis *eaſy* to *burn* Bricks of any Thickneſs, or Form; as was plain from the huge *Earthen Backs*, and *Fire-Hearths*, which have been publickly ſeen. And as for the *Strength*, and *Duration* of ſuch Works, it may plainly be *affirm'd*, from the Practice now frequent in *England*, of carrying *Water* a great way under Ground, in Pipes made of Earth, and well *luted* at the Joints; which are found to reſiſt all Extremities of Weather; and, though

though infinitely *cheaper*, are as Lasting and Serviceable as *Leaden*, or *Timber* ones.

We may add to these Proofs, the *Barnstaple Ovens* of *Devonshire*, which are now made, and us'd in *some other Counties*; and being first form'd of common *Potters Clay*, in *one entire Piece*, are not only cleaner, and cheaper than any other Ovens, but bake with more *Evenness*, and *Certainty*, and consume *not a Fourth of the Fuel*, which is wasted in those of the ordinary Fashion in *London*, and *elsewhere*.

ESSAY IV.

OUR Publiſhing the uſeful Inſtruction, which compoſes this *Eſſay*, was owing entirely to a very *odd Accident*, which will be told you in the Sequel, and which, beſides the *particular* Benefit, may afford us the Advantage of this *General* Application, That *the Negligence of Men is ſo great, and univerſal, that* CHANCE *has a viſible Hand in the Diſcovery of every Thing Uſeful, or Ornamental to Life.*

Nor will it be an unpleaſant Amuſement, to produce a moſt famous *Example* in the following Story.

Gonſalvo Peralta, an old *Spaniſh* Merchant, who reſided in one of the Cities of *Peru*, was equally remarkable for his *Wealth*, and his *Ava-*

rice: His natural Diſpoſition to heap up his Stores, made him rigidly watchful over the Labours of his *Negroes*, and frequently induc'd him to *puniſh* them with a barbarous Severity.

One among theſe black Sufferers, who was either leſs able to *bear* than the reſt, or more apt to *provoke*, ran away from his Maſter's Plantation, and rambled, Day and Night, through the Woods, and wild Coverts of that thin-Peopled Country, under conſtant, and terrible Apprehenſions to be met, or overtaken by the *Guards* of *Light-Horſe*, who are ſent out to *Patrole* up and down, upon all ſuch Occaſions.

He imagin'd one Day, that he heard at a Diſtance the *Approaches of Horſemen*, and in order to avoid them, thought it ſafeſt to *climb up* a Mountain, on whoſe *Side* he was travelling, and which *roſe* from that Place with a *horrible Steepneſs:* Accordingly, with infinite Difficulty, he was got to a very conſiderable Height, when taking hold accidentally of a thick, ſtubby *Branch*, which hung over a Rock, with Deſign, by its Aſſiſtance, to help himſelf higher, the Tree, by his Weight, was drawn out by the Roots, and together with the *Negro*, roll'd down with much Swiftneſs to the bottom of the Mountain.

The poor Wretch lay long without Motion, or Senſe, (the Effect of his Fright, and ſome dange-

dangerous Bruiſes,) but when he came to himſelf, he found his Hand *clos'd on the Branch*, which had occaſion'd his Tumble, and perceiv'd at its Root a conſiderable Quantity of *rich Silver Oar*, which lay entangled with the Fibres.

He bethought himſelf, on a little Reflection, that this lucky Diſcovery of a Mine of that Metal, which his Maſter was ſo fond of, would procure him his *Liberty*, or ſoften at leaſt the *Severity* of his *Uſage:* With this View he *went back*, and giving full *Information* of the Accident, proper Searches were made; and to this *ſmall Beginning*, the *Spaniſh* Dominions owe all the Wealth, which abounds inexhauſtably in the famous, and ſo much envy'd *Mines* of *Potoſi*.

We have ſhorten'd the Circumſtances of the *foregoing* Relation, that we might not detain you too long from *another*, out of which, as we hinted before, we have taken Occaſion to form the Eſſay we are about to preſent you.

Toward the End of that unſeaſonable *Autumn*, which happen'd laſt Year but one, the Wife of a Farmer, in that Part of *Kent* call'd the *Wild*, gather'd *in* a great Quantity of *Green unripe Grapes*, which the Sun had not Power to bring to Maturity, with Deſign to make *Verjuice*; and to that End ſhe preſs'd, and prepar'd them, as is uſual in making that Liquor; but whether the *Vine* was of a particular *Species*, or

the Grapes were grown *riper* than ſhe thought them, or to what *other* Cauſe it was owing, is unknown: But when, after ſome Months *lying by*, ſhe came to open her Veſſel, and examine its Condition, the *Verjuice* ſhe expected, was an excellent *Wine*, of a high ſprightly Reliſh, ſparkling briſkly in the Glaſs, and as clear as Rock-Water.

This *perfect*, however *unexpected* Operation of *Nature her ſelf*, gave ſome Gentlemen of our Society, a convincing Demonſtration of what they had long believ'd poſſible, That *England* wants *Wine of her own*, not through any *Defect* in her *Climate*, but the Omiſſion of due *Induſtry* in her negligent *Natives*.

The *Vintners*, and *Winecoopers*, will have Reaſon to thank us, if we furniſh their Cellars without paying *Cuſtom*. And the Owners of *Lands*, which are fit for this Purpoſe, will not ſcruple a Bumper of their *Firſt-born* new Product, to the Health of our Society, if in the Courſe of this Eſſay, we make undeniable the following Particulars: That this *fortunate Iſland* is fitter than moſt Parts of *France*, for the Propagation of *Vineyards*: That, till about *Six Hundred Years ſince*, it was as common to make *Wine* in *England*, as it is now to make *Malt*: By what means it happen'd, that the *Planting of Vineyards* became *diſcontinued*: And how it may eaſily be *reſtored* to the general Practice, ſo that *Wine* may be afforded as *cheap*, as our *Ale* is at preſent.

In

In the first Place, 'tis true, that *some Parts of France*, such as *Orleans*, *Provence*, and *Languedoc*, (which are famous for *Wines*,) are seated much nearer the Sun, and are fitter in other Respects, than most Parts of this *Island*. But again, there are some of the finest *French Wines*, which grow about *Paris*, *Beauvais*, *Diep*, *Arles*, and *Ruille*: And several of these Places (as may be seen in the *Maps*) are as *Northerly* Seated, as the Latitudes of some Parts of *England*, particularly the *South-West of Devonshire*, about *Dartmouth*, and more especially the Islands of *Guernsey*, and *Jersey*. We need not mention some Tracks of the *Rhine*, the *Moselle*, and other Rivers in *Germany*, so famous for the *Old Hock*, and *Rhenish*, which are none of the worst Wines we deal in. It is plain, then, it is not our *Distance from the Sun*, which occasions this Deficiency: Let us see, if we owe it to our *Air*, or our *Weather*.

In both these Particulars we shall find an Advantage in our *Favour*: The Severity of the Winters in *France*, nay, in *Italy it self*, must be own'd to be visibly *greater* than in *England*, and their Frosts are so lasting, and so nipping, that 'tis no *rare* Misfortune, to find their *Vineyards* destroy'd by that Means, very forward in *April*. On the contrary, *our Winters* are *mild*, and our *Frosts* much *less piercing*; which Benefits we owe to the *Grossness* of our *Air*, and our *Neighbourhood* to the *Ocean*: Neither are we subject to those strange Storms of *Hail* in

the *Summer*, which are common in all the *hot* Countries of *Europe*; and ſweeping, with a kind of Peſtilential Sulphur, over great Tracks of Land, deſtroy all the Grapes in their Journey: We are liable, 'tis true, to a good deal more *Rain* than the *Continent*, and ſuperfluous *Moiſture* muſt be own'd a great Enemy to *Vineyards:* But that Inconvenience may not only be *avoided* by the *Manner of our Planting*, but is infinitely more than *atton'd for* by our various Advantages.

Thus 'tis viſible, that as to our Latitude, and the Temperature of our *Climate*, we are no way behind-hand with ſome of thoſe Countries, from whom we ſupinely content our ſelves to be furniſh'd with Wines, at what Rates they think fit to impoſe. But it is a *remarkable Flaw* in the *Genius* of our *Nation*, to diſtruſt new Improvements, and believe nothing *eaſy to be done*, which is *not done already*; though perhaps 'tis a *general Error*, and infects *Foreign* Countries with an equal Stupidity. And our honeſt *Unbelievers* may keep themſelves in Countenance, by remembring the Story of the *Old Roman Soldiers*, who were ſent, as a Colony, to govern *Alſatia*, a moſt *Fertile*, and *Southerly* Province of *Germany*. Theſe merry *old Topers* had a Notion, by ſome Means put into their Heads, that no *Vines* could grow in a Climate ſo *cold*, as that they were going to, and therefore they *Mutiny'd* againſt their *Commanders*, who, with no ſmall Difficulty, brought them to believe, it was *poſſible* to cultivate *Vineyards* in *Alſatia*, as well as in *Italy*. But Experience convinc'd them as ſoon

ſoon as they *try'd*; and from that Time to this, the beſt Vines in *Europe* abound in that Country; from whence they have ſpread many Hundred Miles more to the *Northward*. A Man might pleaſantly argue from hence, that the *Germans*, and *Italians*, ow'd much of their Valour to the good *Wine*, they drank of; which we offer as a Hint, to be made uſe of on Occaſion, when it ſhall be objected to ſome honeſt Soldier over his Cups, that an *Engliſh-Man can't fight without Beef in his Belly.*

But ſeriouſly to return to our Subject: Other Nations take Advantage to expoſe us unjuſtly, and ground their Reflections on our own Miſrepreſentation of our Country's Fertility: What fairer Example of this can be given, than a ſilly Obſervation we meet with in a *French* Book, Entituled, *The Political Treaſure*; ſo notoriouſly falſe, that 'twere downright ridiculous to go about to confute it? *It is true*, ſays this Author, *that their Iſland of* England *abounds with good ſtore of* BUTTER, HARD CHEESE, and BLACK CATTLE; *nor do they (being Peopled but thinly) find any want of* BREAD-CORN *among them: But were they to endeavour to propagate the Conveniences and Superfluities of* FRANCE, *they are modeſt enough to* CONFESS, *'twou'd be labouring in vain: And this, among their other Misfortunes, is a remarkable Deficiency, That* HOPS *can by no Art whatever be brought to grow with them.* It is no wonder, that the *French* think our Country incapable of *Vineyards*, if they

they will not allow the Poor *Hop* to find Nouriſhment among us.

But now, from the *Reaſon* we will come to the *Fact*, and prove, That, in old Time, Vineyards *actually did* thrive in *England*. To this Day there remains, in all Parts of this Nation, the old Name of *Vineyard* to pieces of Land, which have never in the Memory of Man been employ'd to that Uſe; whence 'tis natural to argue, that they formerly *were* what they now bear the Name of. This, however, will paſs for no more than a Preſumptive Evidence; and the Laws of our Countrey require clear and *poſitive Proof*, before Judgment.

The learned Mr. *Cambden* quotes ſeveral Inſtanſtances, to prove that many Hundred Years ſince, it was common for *Vineyards to flouriſh in* England. The famous old Record, call'd *Dooms-day Book*, which is a kind of General Survey of Church Lands, and their Product, abounds in remarkable Proofs of the Matter before us; and mentions, particularly, how many Acres of *Vines* grew at *Ely* in *Cambridgſhire*, and *Leigh* in the Hundreds of *Eſſex*; which are both ſo near *London*, that we choſe thoſe two Places in Preference to others. Further, *William* of *Malmsbury*, who liv'd before the Conqueſt, in deſcribing the Bleſſings of *England*, takes occaſion to mention the *Wine*, that was every where made in his Time, with this Extraordinary *Encomium*, That it was *equal* to the *French Wine*, in every Thing to be *lik'd*, and infinitely *exceeded* it in this one Particular,

lar, that it was not so subject to an *unpleasant Tartness*.

This may serve to convince the most diffident, that *once we had Wine made among us*: It remains to give a Guess at the Cause, *why it was not continued to our Time*. And this appears easy from *Circumstances* to be met with in our *History*; and the *Consequences*, which may be reasonably subjoin'd, as the Natural *Effects* of such *Causes*.

When *William the Conqueror*, by his Acquisition of *England*, annex'd to its Dominions the Dukedom of *Normandy*, and its spacious Dependancies, it is reasonable to believe, that Himself, and his Successors, did, by all means, endeavour to establish a good Correspondence, and mutual Affection between his *New* People and his *Old*. The most effectual way to do this, was, by some means or other, to make *England* beholden to his Native Dominions, for a yearly Supply of some Product we wou'd *least Care to want*: Our Ancestors are recorded for a *fam'd Hospitality:* The want of good *Wine*, that Support of good *Humour*, cou'd never be brook'd by Men so dispos'd; wherefore it was but to *find some Pretence for destroying the Vineyards of* England; and it was a Consequence that the Merchants of *Gascoign*, and other *French* Provinces, might pour in upon us a yearly Inundation of *Wine*, to supply the Demands which the *Law* made it *penal* to furnish *at Home*.

Pretences

Pretences cou'd never be wanting, to make this go down with the Multitude, as a *National Benefit*; the *Encouragement of Trade*; the *Increaſe of Navigation*; the greater *Aptneſs of Soil* in thoſe Countries, and the *Witchcraft* of *Novelty*: All theſe, and a great many more ſuch Inducements, were ſufficient to quiet the Clamour of the People, who were moſt *immediately Sufferers*, by the Deſtruction of their Vineyards: And the diſcontinuance of Planting them, being once grown a *Cuſtom*, Length of Time, wearing out the Remembrance of the *Truth*, the Diſtinction is not eaſily made between not being *able*, and not being *ſuffer'd*.

There is nothing *ſurprizing*, or *improbable* in this Imagination; and it is not yet out of ſome Peoples Remembrance, when a *Step very like it* was taken, and the Growth of *Tobacco* in *England* was put down by Act of Parliament, for Advancement of *Trade*, and Encouragement of *Virginia*; tho' many of our Counties, and *Glouceſterſhire* in particular, did not only produce Tobacco more pleaſant, and fit for our Conſtitutions, but by that means made more Profit of their Lands, beyond all Compariſon, than by any other Uſe they cou'd put them to.

Now if, hereafter, by ſome unforeſeen Accident, the *Records* ſhou'd be *loſt*, which give Light to this Matter, it is not unlikely, but *Five or Six Hundred Years hence*, when *Virginia* may poſſibly, by the Chances of Time, be under a diſtinct Juriſdiction,

diction, it will generally be believ'd, that the *Climate of* England *is unfit for Tobacco*, and that *therefore* they are forc'd, at ſuch a yearly Expence, to be ſupply'd from *America*.

But whatever may be thought of the *Vineyards of old*, the Matter in Hand will be out of Diſpute, if the Reader informs himſelf, which he eaſily may, That even *at this very time there are Vineyards in* England, from whence has been made moſt agreeable *Wine*, in Quantity ſufficient to furniſh a great deal to the *Vintners* of *London*: As a Proof of which Fact, we need only mention Sir *William Baſſet*'s known *Vineyard* near the *Bath*, Mr. *Howard*'s by *Darking* in *Surry*, and that of Sir *John Mordaunt* of *Blackheath* near *London*.

But tho' theſe, and ſome others, do often *hit well*, they are many times obſerv'd, and eſpecially in unſeaſonable Years, to *deceive* very much the *Expectation* of their *Owners*; which Diſappointments ariſe from *two* Principal *Cauſes*; their not chuſing *Grapes* the moſt *fit* for our Climate, and their Planting the *Vines* in a *manner as improper*.

If any Man therefore wou'd *ſucceſsfully* nouriſh a Vineyard, he need only give himſelf the Trouble of *obſerving* the Directions which follow.

The

The *Situation* ſhou'd face the *South-Eaſt*, or *South-Weſt*; the *Soil* ſhou'd be *Gravelly*, *Light*, *Sandy*, or *Stony*; the Side of a *Hill* ſhould be choſen, if poſſible, but *plain* Ground, in *our* way, will be almoſt as ſerviceable.

The *Grapes*, which are *proper for England*, are ſuch, as are *earlieſt* ripe, moſt naturally *hardy*, and have ſmall jagged Leaves, which *ſhade* not too much, but let in the *Sun* with a double Refreſhment; ſuch as theſe are the *Canada Grape*, the *Vine* of the *Rhine*; the ſmall *Muſcadel*, and above all, that ſort which abounds in the Vineyards, which lie every where round the City of *Paris*, from whence we may be furniſh'd with well rooted Setts for about *Six-Pence the Hundred*, not reckoning in the Charge of *bringing them over*.

But we wou'd recommend, inſtead of theſe *ſmall Setts*, which are commonly bought, the Uſe of large full grown Roots, which are yearly cut up and thrown away about *Paris*, for the thinning their Vineyards: For theſe may not only be had at as reaſonable a Price as the other, but being pack'd up in Boxes, with Earth thrown between them, will come over without much Expence; ſince *four Hundred* ſuch Roots are ſufficient to plant a whole *Acre*; but will alſo ſhoot ſtrongly, and bear Fruit the *firſt Summer*; whereas on the contrary, the *ſmall Setts*, which are *commonly planted*, bear nothing at all in *three Years*, and even *then* produce *ſparingly*.

Theſe

These Roots must be planted in long shallow Trenches, at the distance of Ten Foot one from the other; and the most flourishing Branches, as they rise, must be suffer'd to run, like our Peaches and Apricots, on the most Sunny side of a low slight Wall, about Three Foot in Heighth, till they meet one another; after which, all superfluous Shoots must be kept down by Pruning; and if the Top of the Walls were made to *hang over*, by being built about Three Inches broader than the rest, they wou'd afford an infallible Security against all the *Blasts*, and ill Accidents, which frequently ruin an *unguarded* Vineyard.

The Walls will by no means be so expensive as may be thought, because they are built of the *Pebbles*, *Flints*, and rough *Stones*, which are every where found *upon the Spot*, in Lands proper for *Vine-bearing*, and plaister'd together with common *Clay* and Water: They must be built about Eight or Ten Foot from each other, so as one may not suffer by the Shadow of its Neighbour. They shou'd stand in such manner, that the *Allies* between them may be open all Day to the *Course of the Sun*, and by that means the Vines will be also defended by the Walls at their Backs, from all noxious *Winds*, which might otherwise injure them: The Allies should be cover'd, till within a Foot of the Vines, with a smooth *Coat* of *Gravel*, or *Sand*, or *hard Stones*, roll'd in, and kept free on the Surface from Grass, Weeds, or any

Growth whatever: All which is presented to the Eye, as correctly as cou'd be *drawn*, in the Cut which is prefix'd to this *Essay*.

Thus the *Vines*, being shelter'd from *Winds*, kept warm from all *Frosts*, not suffer'd to *waste* themselves by unprofitable shooting, but kept *low*, and within the full Influence of the Sun's strong *Reflection* from the *Walls*, and the *Allies*, will be Proof against any of the ordinary Accidents, and Annually produce you a plentiful Vintage, before the short Days, and lost Vigor of the Sun, can discourage them in ripening.

It may possibly be a *Spur* to the *Undertaking*, if besides the great *Pleasure*, which wou'd follow this Improvement, we observe what a *Profit* woud, as surely, attend it. To which End we need only relate, what is known for a Truth in all Parts of *France*; and most other Countries, that *Sixteen Hogsheads of Wine* is the common Increase, which, one Time with another, they expect from an *Acre*.

If, notwithstanding, these Cautions, it shou'd sometimes so happen, that by unseasonable, or extraordinary *Wetness*, or *Coldness* of *Summers*, the Grapes shou'd not *Ripen* so kindly, as they ought; the *Germans* have a Practice, which being, in such Case, made use of, were an easy and infallible *Remedy* against it. They have *Stoves* in their *Cellars*, which they always keep hot by large Fires within them; and, by that means,

means, diffusing an equal and powerful *Warmth* among all their Vessels; their Wines, when they chance to be made of *Green Grapes*, work more kindly than ordinary; and, by an Artificial *Digestion*, throw *off*, and *divest* themselves of the *Rawness*. Other Nations produce the *same End* by a *Means* somewhat *different*; for they *boil up* their *Must*, or New Wine, till, by considerable Evaporation of the watry Part, the Remainder assumes a new Colour, and becomes better body'd, and of admirable Relish.

FINIS.

ERRATA.

PAG. 21. lin. 9. for *Whitsers*, read *Whitsters*. Pag. 27. lin. 26. for *Substance*, read *Surface*.

Advertiſement.

ALL who wou'd have theſe Books brought Monthly to their Houſes, paying only a *Shilling for each Book*, at the *Delivery*, which in the whole is a Charge of but Twelve Shillings a Year, may be furniſh'd with them, upon giving Notice to the *Beadles* of their *reſpective Pariſhes*: For our Deſign being nothing but the *Publick Good*, we chuſe that way of *ſpreading our Eſſays*, that Rich and Poor may have them without Trouble; and the *Good* we aim at, may, by that Means, alſo ſpread as wide as poſſible.

Throughout the Courſe of our Deſign, there will be handled ſuch *Diverſity of Subjects*, that (far from being meer *Amuſement* for the *Fancy*, or what is worſe, inflaming *Corroſives* to *Party Diſcord*) it will produce a *Univerſal Solid Benefit*, by which there is no *Rank*, *Profeſſion*, *Trade*, or *Circumſtance* of *Life*, but will, in ſome Part or other of the Treatiſe, be particularly, and *in their own direct way*, Intereſted, and Advantag'd.

It is, in Truth, a Book ſo uſeful, that no Family will be without it, if they weigh but the unuſual *Good* it muſt produce; if not to every Man *diſtinctly*, yet to ſome *Relation*, or *Acquaintance*, of a different Turn of Mind, or Education. And out of which their *Children*, poſſibly, may take ſome *Hint* to raiſe Themſelves a *Fortune*, when their Parents are no longer *living* to Aſſiſt and Succour them.